# AUDIT REPORT

Hostname:              Access_SW3
Config file name:      Access_SW3_startup-config.cfg
Config hash:           3b69a01d24ead70341c5d020c5db39306b92332a
Vendor:                cisco
OS:                    ios
Facility layer:        access
L3 protocols:          ipv6,ipv4
Date:                  18/05/2020_09:43

## SUCCESS STATISTICS

| | |
|---|---|
| Weighted score coefficient: | 45 out of 100 |
| Successful checks: | 26.1% |
| Unsuccessful checks: | 73.9% |
| Total number of relevant started checks: | 176 |
| Successful checks: | 43 |
| Unsuccessful 'Critical': | 44 |
| Unsuccessful 'High': | 44 |
| Unsuccessful 'Medium': | 36 |
| Unsuccessful 'Low': | 6 |
| Unsuccessful 'Notice': | 3 |

## Authentication, Authorization, Accounting

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|---|---|---|---|---|---|
| 1 | AAA new model/ Enabled AAA | High | False | False | Error ✗ |

**Generated fix:**
aaa new-model

| 2 | AAA server set | High | False | False | Error ✗ |

**Generated fix:**
radius server RADIUS_SERVER
address ipv4 192.168.60.11
key RadKey1

| 3 | AAA server group | High | False | False | Error ✗ |

**Generated fix:**
aaa group server radius RADIUS_SERVER
server name RADIUS_SERVER

| 4 | AAA authentication login | High | False | False | Error ✗ |

**Generated fix:**
aaa authentication login default group RADIUS_SERVER local enable

| 5 | AAA authentication login fallback | High | False | False | Error ✗ |

**Generated fix:**
aaa authentication login default group RADIUS_SERVER local enable

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|---|---|---|---|---|---|
| 6 | AAA authentication login only local disabled | High | False | False | Successful ✔ |
| 7 | AAA authentication login none disabled | Critical | False | False | Successful ✔ |
| 8 | AAA authentication "enable" | Medium | False | False | Error ✘ |

**Generated fix:**
aaa authentication enable default group RADIUS_SERVER enable

| | | | | | |
|---|---|---|---|---|---|
| 9 | AAA authentication "enable" fallback | Medium | False | False | Error ✘ |

**Generated fix:**
aaa authentication enable default group RADIUS_SERVER enable

| | | | | | |
|---|---|---|---|---|---|
| 10 | AAA authentication "enable" only local disabled | Medium | False | False | Successful ✔ |
| 11 | AAA authentication "enable" none disabled | High | False | False | Successful ✔ |
| 12 | AAA authorization "exec" | High | False | False | Error ✘ |

**Generated fix:**
aaa authorization exec default group RADIUS_SERVER local if-authenticated

| | | | | | |
|---|---|---|---|---|---|
| 13 | AAA authorization "exec" fallback | High | False | False | Error ✘ |

**Generated fix:**
aaa authorization exec default group RADIUS_SERVER local if-authenticated

| | | | | | |
|---|---|---|---|---|---|
| 14 | AAA authorization "exec" only local disabled | High | False | False | Successful ✔ |
| 15 | AAA authorization "exec" none disabled | Critical | False | False | Successful ✔ |
| 16 | AAA accounting "connection" | High | False | False | Error ✘ |

**Generated fix:**
aaa accounting connection default start-stop group RADIUS_SERVER

| | | | | | |
|---|---|---|---|---|---|
| 17 | AAA auccounting "connection" none disabled | High | False | False | Successful ✔ |
| 18 | AAA accounting "exec" | High | False | False | Error ✘ |

**Generated fix:**
aaa accounting exec default start-stop group RADIUS_SERVER

| | | | | | |
|---|---|---|---|---|---|
| 19 | AAA accounting "exec" none disabled | High | False | False | Successful ✔ |
| 20 | AAA source interface | Medium | False | False | Error ✘ |

**Generated fix:**
ip radius source-interface Loopback0

| | | | | | |
|---|---|---|---|---|---|
| 21 | AAA authentication max attempts less or equal to 5 | High | False | False | Successful ✔ |

## Access to device

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|---|---|---|---|---|---|
| 1 | Exec timeout <=5 minutes | Medium | False | False | Error ✘ |

**Found error in context(s):**
line con 0
line vty 0 4

**Generated fix:**
line con 0
exec-timeout 5

line vty 0 4
exec-timeout 5

| | | | | | |
|---|---|---|---|---|---|
| 2 | AUX connection input disabled | High | False | False | Successful ✔ |
| 3 | AUX no execution set | High | False | False | Error ✘ |

**Found error in context(s):**
line aux 0

**Generated fix:**
line aux 0
no exec

| | | | | | |
|---|---|---|---|---|---|
| 4 | Remote output connections disabled | Medium | False | False | Error ✘ |

**Found error in context(s):**
line con 0
line aux 0
line vty 0 4

**Generated fix:**
line con 0
transport output none

line aux 0
transport output none

line vty 0 4
transport output none

| | | | | | |
|---|---|---|---|---|---|
| 5 | Local user database with encrypted password | Critical | False | False | Error ✘ |

**Generated fix:**
username admin secret admin_password

| | | | | | |
|---|---|---|---|---|---|
| 6 | Local user database with plaintext password disabled | Critical | False | False | Successful ✔ |
| 7 | Enable password encrypted | Critical | False | False | Error ✘ |

**Generated fix:**
enable secret enablepasswd123

| | | | | | |
|---|---|---|---|---|---|
| 8 | Enable password plaintext disabled | Critical | False | False | Successful ✔ |
| 9 | Local login to virtual terminal disabled | Critical | False | False | Error ✘ |

**Error configuration setting found in:**
line vty 0 4
login

**Found error in context(s):**
line vty 0 4

| | | | | | |
|---|---|---|---|---|---|
| 10 | Restrict login to device - IPv4 ACL | Critical | False | False | Error ✘ |

**Found error in context(s):**
line vty 0 4

**Generated fix:**
line vty 0 4
access-class IPV4_VTY_ACL in

| | | | | | |
|---|---|---|---|---|---|
| 11 | ACL specified for VTY access is created | Critical | False | False | Error ✘ |

**Comment:**
Cannot be fixed automatically!

**Fix notice:**
Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for managing devices with these commands:
ip access-list standard <acl name>
remark Permiting managemnt device
permit <ip address> <wildcard mask>

| 12 | Log login to device on failure | High | False | False | Error �’ |
|----|-------------------------------|------|-------|-------|---------|

**Generated fix:**
login on-failure trap
login on-failure log
login on-failure log-input

**Fix notice:**
Depending on IOS, usually just one of fixing command is applicable to device. There are more because of different syntax and support among IOS versions.

| 13 | Log login to device on success | Medium | False | False | Error ✗ |
|----|-------------------------------|--------|-------|-------|---------|

**Generated fix:**
login on-success trap
login on-success log
login on-success log-input

**Fix notice:**
Depending on IOS, usually just one of fixing command is applicable to device. There are more because of different syntax and support among IOS versions.

| 14 | Login quiet mode | Medium | False | False | Error ✗ |
|----|------------------|--------|-------|-------|---------|

**Generated fix:**
login quiet-mode access-class IPV4_VTY_ACL

| 15 | ACL exists for specified login quiet mode | Medium | False | False | Error ✗ |
|----|-------------------------------------------|--------|-------|-------|---------|

**Comment:**
Cannot be fixed automatically!

**Fix notice:**
Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for managing devices with these commands:
ip access-list standard <acl name>
remark Permiting managemnt device
permit <ip address> <wildcard mask>

| 16 | One user change config at time | High | False | False | Error ✗ |
|----|-------------------------------|------|-------|-------|---------|

**Generated fix:**
configuration mode exclusive
configuration mode exclusive auto

**Fix notice:**
Just one of fixing command is applicable to device. There are more because of different syntax among IOS versions.

| 17 | Legal banner MOTD | Low | False | False | Error ✗ |
|----|-------------------|-----|-------|-------|---------|

**Generated fix:**
banner motd ; Unauthorized access will be prosecuted!! ;

| 18 | Legal banner exec | Low | False | False | Error ✗ |
|----|-------------------|-----|-------|-------|---------|

**Generated fix:**
banner exec ; Unauthorized access will be prosecuted!! ;

| 19 | Legal banner login | Low | False | False | Error ✗ |
|----|--------------------|-----|-------|-------|---------|

**Generated fix:**
banner login ; Unauthorized access will be prosecuted!! ;

| 20 | Session timeout | Medium | False | False | Error ✗ |
|----|-----------------|--------|-------|-------|---------|

**Found error in context(s):**
line con 0
line aux 0
line vty 0 4

**Generated fix:**
line con 0
session-timeout 30

line aux 0
session-timeout 30

line vty 0 4
session-timeout 30

| 21 | AUX exec timeout one second | High | False | False | Error ✘ |
|----|------------------------------|------|-------|-------|---------|

**Found error in context(s):**
line aux 0

**Generated fix:**
line aux 0
exec-timeout 0 1

| 22 | Restrict login to device - IPv6 ACL | Critical | False | False | Error ✘ |
|----|-------------------------------------|----------|-------|-------|---------|

**Found error in context(s):**
line vty 0 4

**Generated fix:**
line vty 0 4
ipv6 access-class IPV6_VTY_ACL in

| 23 | ACL IPv6 specified for VTY access is created | Critical | False | False | Error ✘ |
|----|----------------------------------------------|----------|-------|-------|---------|

**Comment:**
Cannot be fixed automatically!

**Fix notice:**
Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for managing devices with these commands:
ipv6 access-list <acl name>
remark Permiting managemnt device
permit ip <ip address> <wildcard mask> any

| 24 | Login DOS block for | High | False | False | Error ✘ |
|----|---------------------|------|-------|-------|---------|

**Generated fix:**
login block-for 120 attempts 3 within 30

## SSH

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | SSH enable on management connection | Critical | False | False | Error ✘ |

**Found error in context(s):**
line vty 0 4

**Generated fix:**
line vty 0 4
transport input ssh

**Fix notice:**
Make sure RSA key is present - generated or imported. For generating RSA key, issue command:
crypto key generate rsa modulus 2048

| 2 | SSH version 2 | Critical | False | False | Error ✘ |

**Generated fix:**
ip ssh version 2

| 3 | SSH timeout | Medium | False | False | Error ✘ |

**Generated fix:**
ip ssh timeout 30
ip ssh time-out 30

**Fix notice:**
Just one of fixing command is applicable to device. There are more because of different syntax among IOS versions.

| 4 | SSH max 3 retries | Medium | False | False | Successful ✔ |
| 5 | SSH source interface | High | False | False | Error ✘ |

**Generated fix:**
ip ssh source-interface Loopback0

| 6 | SSH not default port | High | False | False | Error ✘ |

**Generated fix:**
ip ssh port 2223 rotary 1

| 7 | SSH not default port applied | High | False | False | Error ✘ |

**Found error in context(s):**
line vty 0 4

**Generated fix:**
line vty 0 4
rotary 1

## Device identification

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|---|---|---|---|---|---|
| 1 | Hostname set | Low | False | False | Successful ✔ |

**Comment:**
Cannot be fixed automatically!

**Right configuration setting found in:**
hostname Access_SW3

| 2 | Domain name set | Low | False | False | Error ✘ |

**Generated fix:**
ip domain-name thesis-test.cz
ip domain name thesis-test.cz

**Fix notice:**
Just one of fixing command is applicable to device. There are more because of different syntax among IOS versions.

| 3 | All interfaces have description | Low | False | False | Error ✘ |

**Comment:**
Cannot be fixed automatically!

**Found port(s) with error:**
Ethernet0/0
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3
Serial4/0
Serial4/1
Serial4/2
Serial4/3
Serial5/0
Serial5/1
Serial5/2
Serial5/3
Vlan1

**Fix notice:**
Set interface descrtiption with command:
interface <interface name>
description <description of interface>

**Fix ignore comment:**
Fixing commands suppressed due to manual need of manual chenage and name determination.

## SNMP

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|----------------------------|--------|
| 1 | SNMP v2 write disabled | Critical | False | False | Successful ✔ |
| 2 | SNMP v2 read without ACL disabled | Critical | False | False | Successful ✔ |
| 3 | SNMP v2 read with ACL disabled | Critical | False | False | Successful ✔ |
| 4 | SNMP v1 trap host disabled | Critical | False | False | Successful ✔ |
| 5 | SNMP v2 trap host disabled | Critical | False | False | Successful ✔ |
| 6 | SNMP v3 read [authnopriv\|noauth\|authpriv without ACL] or write disabled | Critical | False | False | Successful ✔ |
| 7 | SNMP v3 read authpriv with ACL enabled | Critical | False | False | Error ✘ |

**Generated fix:**
snmp-server group SNMP_V3_GRP v3 priv read READVIEWv3 access SNMP_V3
snmp-server user SNMPv3USER SNMP_V3_GRP v3 auth sha SnmpPasswd123 priv aes 256 SnmpPasswd123 access SNMP_V3

| | | | | | |
|-----|------|----------|---------|----------------------------|--------|
| 8 | SNMP v3 read authpriv with IPv6 ACL enabled | Critical | False | False | Error ✘ |

**Generated fix:**
snmp-server group SNMP_V3_GRP_IPV6 v3 priv read READVIEWv3 access ipv6 SNMP_V3_ACL6
snmp-server user SNMPv3USER SNMP_V3_GRP_IPV6 v3 auth sha SnmpPasswd123 priv aes 256 SnmpPasswd123 access SNMP_V3_ACL6

| | | | | | |
|-----|------|----------|---------|----------------------------|--------|
| 9 | SNMP user v1\|v2c or v3 [noauth\|authnopriv\|no sha\|no aes\|without ACL] disabled | Critical | False | False | Successful ✔ |
| 10 | SNMP trap source interface | High | False | False | Error ✘ |

**Generated fix:**
snmp-server trap-source Loopback0

| | | | | | |
|-----|------|----------|---------|----------------------------|--------|
| 11 | SNMP server location | High | False | False | Error ✘ |

**Generated fix:**
snmp-server location GNS3LAB

| 12 | SNMP v3 traps priv | Medium | False | False | Error ✘ |
|----|--------------------|--------|-------|-------|---------|

**Generated fix:**
snmp-server host 192.168.60.11 version 3 priv SNMPv3USER

| 13 | SNMP traps v3 read [authnopriv\|noauth] or v1\|v2 disabled | Critical | False | False | Successful ✔ |
|----|-----------------------------------------------------------|----------|-------|-------|--------------|
| 14 | SNMP traps enabled | Medium | False | False | Error ✘ |

**Generated fix:**
snmp-server enable traps

| 15 | ACL is created for SNMPv3 | Critical | False | False | Error ✘ |
|----|---------------------------|----------|-------|-------|---------|

**Comment:**
Cannot be fixed automatically!

**Fix notice:**
Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for receiving SNMP with these commands:
ip access-list standard <acl name>
remark Permiting SNMP
permit <ip address> <wildcard mask>

| 16 | ACL IPv6 is created for SNMPv3 | Critical | False | False | Error ✘ |
|----|-------------------------------|----------|-------|-------|---------|

**Comment:**
Cannot be fixed automatically!

**Fix notice:**
Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for receiving SNMP with these commands:
ipv6 access-list <acl name>
remark Permiting managemnt device
permit ip <ip address> <wildcard mask> any

| 17 | SNMP interface index persist enabled globally | High | False | False | Error ✘ |
|----|-----------------------------------------------|------|-------|-------|---------|

**Generated fix:**
snmp-server ifindex persist
snmp ifmib ifindex persist


**Fix notice:**
Just one of fixing command is applicable to device. There are more because of different syntax among IOS versions.

| 18 | SNMP interface index persist enabled per interface | High | False | False | Error ✘ |
|----|----------------------------------------------------|------|-------|-------|---------|

**Found port(s) with error:**
Ethernet0/0
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3
Serial4/0
Serial4/1
Serial4/2
Serial4/3
Serial5/0
Serial5/1
Serial5/2
Serial5/3
Vlan1

**Generated fix:**
```
interface Ethernet0/0
snmp ifindex persist
exit
interface Ethernet0/1
snmp ifindex persist
exit
interface Ethernet0/2
snmp ifindex persist
exit
interface Ethernet0/3
snmp ifindex persist
exit
interface Ethernet1/0
snmp ifindex persist
exit
interface Ethernet1/1
snmp ifindex persist
exit
interface Ethernet1/2
snmp ifindex persist
exit
interface Ethernet1/3
snmp ifindex persist
exit
interface Ethernet2/0
snmp ifindex persist
exit
interface Ethernet2/1
snmp ifindex persist
exit
interface Ethernet2/2
snmp ifindex persist
exit
interface Ethernet2/3
snmp ifindex persist
exit
interface Ethernet3/0
snmp ifindex persist
exit
interface Ethernet3/1
snmp ifindex persist
exit
interface Ethernet3/2
snmp ifindex persist
exit
interface Ethernet3/3
snmp ifindex persist
exit
interface Serial4/0
snmp ifindex persist
exit
interface Serial4/1
snmp ifindex persist
exit
interface Serial4/2
snmp ifindex persist
exit
interface Serial4/3
snmp ifindex persist
exit
interface Serial5/0
snmp ifindex persist
exit
interface Serial5/1
snmp ifindex persist
exit
interface Serial5/2
snmp ifindex persist
exit
interface Serial5/3
snmp ifindex persist
exit
interface Vlan1
snmp ifindex persist
exit
```

## Syslog

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | Syslog server enabled | High | False | False | Error ✘ |

**Generated fix:**
logging host 192.168.60.11

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 2 | Syslog server IPv6 enabled | High | False | False | Error ✘ |

**Generated fix:**
logging host ipv6 fd00:60::2050:79ff:fe66:6805

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 3 | Syslog source interface | Medium | False | False | Error ✘ |

**Generated fix:**
logging source-interface Loopback0

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 4 | Syslog format | Medium | False | False | Successful ✔ |

**Right configuration setting found in:**
service timestamps log datetime msec

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 5 | Syslog critical alerts to console | Medium | False | False | Error ✘ |

**Generated fix:**
logging console critical

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 6 | Syslog send informational traps | High | False | False | Successful ✔ |
| 7 | Syslog buffer set with severity | High | False | False | Error ✘ |

**Generated fix:**
logging buffered 40960 informational

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 8 | Syslog local backup | High | False | False | Error ✘ |

**Generated fix:**
logging persistent url flash:

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 9 | Syslog sequence numbers added | Medium | False | False | Error ✘ |

**Generated fix:**
service sequence-numbers

## NTP

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | NTP server set | High | False | False | Error ✘ |

**Generated fix:**
ntp server 192.168.60.11

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 2 | NTP source interface | Medium | False | False | Error ✘ |

**Generated fix:**
ntp source Loopback0

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 3 | NTP authentication key | High | False | False | Error ✘ |

**Generated fix:**
ntp authentication-key 1 md5 ntpPasswd123

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 4 | NTP trusted key | High | False | False | Error ✘ |

**Generated fix:**
ntp trusted-key 1

| 5 | NTP authenticate | High | False | False | Error ✗ |

**Generated fix:**
ntp authenticate

## High load

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | SNMP traps for CPU load | Medium | False | False | Error ✗ |

**Generated fix:**
snmp-server enable traps cpu threshold

| 2 | Threshold for CPU load | Medium | False | False | Error ✗ |

**Generated fix:**
process cpu threshold type total rising 70 interval 5

| 3 | Statistics entry for CPU load | Low | False | False | Error ✗ |

**Generated fix:**
process cpu statistics limit entry-percentage 70

| 4 | Reserve memory for critical notification | Medium | False | False | Error ✗ |

**Generated fix:**
memory reserve critical 1000

| 5 | Minimum CPU memory notification | Medium | False | False | Error ✗ |

**Generated fix:**
memory free low-watermark processor 2000

| 6 | Minimum IO memory notification | Medium | False | False | Error ✗ |

**Generated fix:**
memory free low-watermark io 2000

## Spanning tree

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | Portfast globally enabled | High | False | False | Error ✗ |

**Generated fix:**
spanning-tree portfast default
spanning-tree portfast edge default

**Fix notice:**
Just one of fixing command is applicable to device. There are more because of different syntax among IOS versions.

| 2 | Portfast enabled on access interface | High | False | False | Error ✗ |

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet0/2
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet0/3
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet1/0
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet1/1
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet1/2
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet1/3
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet2/0
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet2/1
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet2/2
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet2/3
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet3/0
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet3/1
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet3/2
spanning-tree portfast
spanning-tree portfast edge
exit
interface Ethernet3/3
spanning-tree portfast
spanning-tree portfast edge
exit

**Fix notice:**
Just one of fixing command is applicable to device. There are more because of different syntax among IOS versions.

| 3 | BPDU Guard globally enabled | Critical | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
spanning-tree portfast bpduguard default
spanning-tree portfast edge bpduguard default


**Fix notice:**
Just one of fixing command is applicable to device. There are more because of different syntax among IOS versions.

| 4 | BPDU Guard enabled on access interface | High | False | False | Error ✘ ✔ |
|---|---|---|---|---|---|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
spanning-tree bpduguard enable
exit
interface Ethernet0/2
spanning-tree bpduguard enable
exit
interface Ethernet0/3
spanning-tree bpduguard enable
exit
interface Ethernet1/0
spanning-tree bpduguard enable
exit
interface Ethernet1/1
spanning-tree bpduguard enable
exit
interface Ethernet1/2
spanning-tree bpduguard enable
exit
interface Ethernet1/3
spanning-tree bpduguard enable
exit
interface Ethernet2/0
spanning-tree bpduguard enable
exit
interface Ethernet2/1
spanning-tree bpduguard enable
exit
interface Ethernet2/2
spanning-tree bpduguard enable
exit
interface Ethernet2/3
spanning-tree bpduguard enable
exit
interface Ethernet3/0
spanning-tree bpduguard enable
exit
interface Ethernet3/1
spanning-tree bpduguard enable
exit
interface Ethernet3/2
spanning-tree bpduguard enable
exit
interface Ethernet3/3
spanning-tree bpduguard enable
exit

| 5 | BPDU Filter globally disabled | Critical | False | False | Successful ✔ |
|---|---|---|---|---|---|

| 6 | BPDU Filter disabled on access interface | High | False | False | Not relevant ✔ |
|---|---|---|---|---|---|

**Comment:**
Module 09_06_stp_bpdu_filter_interface.yaml configured to run after 09_05_stp_bpdu_filter.yaml with status error but that module has not run yet with specified cmd_match_status, 09_06_stp_bpdu_filter_interface.yaml will not run

| 7 | Loop Guard globally enabled | Critical | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
spanning-tree loopguard default

| 8 | Loop Guard enabled on access interface | High | False | False | Error ✘ |
|---|---|---|---|---|---|

**Found port(s) with error:**
Ethernet0/0
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/0
spanning-tree guard loop
exit
interface Ethernet0/1
spanning-tree guard loop
exit
interface Ethernet0/2
spanning-tree guard loop
exit
interface Ethernet0/3
spanning-tree guard loop
exit
interface Ethernet1/0
spanning-tree guard loop
exit
interface Ethernet1/1
spanning-tree guard loop
exit
interface Ethernet1/2
spanning-tree guard loop
exit
interface Ethernet1/3
spanning-tree guard loop
exit
interface Ethernet2/0
spanning-tree guard loop
exit
interface Ethernet2/1
spanning-tree guard loop
exit
interface Ethernet2/2
spanning-tree guard loop
exit
interface Ethernet2/3
spanning-tree guard loop
exit
interface Ethernet3/0
spanning-tree guard loop
exit
interface Ethernet3/1
spanning-tree guard loop
exit
interface Ethernet3/2
spanning-tree guard loop
exit
interface Ethernet3/3
spanning-tree guard loop
exit

## VLAN

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | Default Vlan not used | Critical | False | False | Error ✘ |

**Comment:**
Cannot be fixed automatically! Cannot automatically determine VLAN assignment to port.

**Right configuration setting found in:**
interface Ethernet0/1
switchport access vlan 50
interface Ethernet0/2
switchport access vlan 60

**Found port(s) with error:**
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Fix notice:**
Eliminate ports with default Vlan by command with Vlan ID different than 1
interface <interface name>
switchport mode access
switchport access vlan <vlan id>

| | | | | | |
|---|---|---|---|---|---|
| 2 | Management VLAN + SVI set and different than 1 | Medium | False | False | Error ✘ |

**Comment:**
Cannot be fixed automatically! Cannot automatically set diffrenet IP among SVI(s) a lot of prerequirements must be met as existing VLAN and port assigned to VLAN.

**Fix notice:**
If successful, it means SVI was found, but it might not be management VLAN!! Management VLAN can be created with command:
interface Vlan <vlan id>
ip address <ip> <mask>
no shutdown

| | | | | | |
|---|---|---|---|---|---|
| 3 | Management VLAN gateway | Medium | False | False | Error ✘ |

**Comment:**
Cannot be fixed automatically! Cannot automatically set default gateway among different switches.

**Fix notice:**
Default gateway can be set with command:
ip default-gateway <ip address>

| | | | | | |
|---|---|---|---|---|---|
| 4 | Native vlan different than 1 | Critical | False | False | Successful ✔ |

**Right configuration setting found in:**
interface Ethernet0/0
switchport trunk native vlan 100

| | | | | | |
|---|---|---|---|---|---|
| 5 | Specified allowed VLAN on trunk | Critical | False | False | Successful ✔ |

**Right configuration setting found in:**
interface Ethernet0/0
switchport trunk allowed vlan 50,60

| | | | | | |
|---|---|---|---|---|---|
| 6 | Switchport mode dynamic disabled | Critical | False | False | Successful ✔ |
| 7 | Switchport implicit dynamic disabled | Critical | False | False | Error ✘ |

**Right configuration setting found in:**
interface Ethernet0/1
switchport mode access
interface Ethernet0/2
switchport mode access

**Found port(s) with error:**
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/3
switchport mode access
exit
interface Ethernet1/0
switchport mode access
exit
interface Ethernet1/1
switchport mode access
exit
interface Ethernet1/2
switchport mode access
exit
interface Ethernet1/3
switchport mode access
exit
interface Ethernet2/0
switchport mode access
exit
interface Ethernet2/1
switchport mode access
exit
interface Ethernet2/2
switchport mode access
exit
interface Ethernet2/3
switchport mode access
exit
interface Ethernet3/0
switchport mode access
exit
interface Ethernet3/1
switchport mode access
exit
interface Ethernet3/2
switchport mode access
exit
interface Ethernet3/3
switchport mode access
exit

| 8 | DTP disabled | Critical | False | False | Error ✖ |

**Found port(s) with error:**
Ethernet0/0
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/0
switchport nonegotiate
exit
interface Ethernet0/1
switchport nonegotiate
exit
interface Ethernet0/2
switchport nonegotiate
exit
interface Ethernet0/3
switchport nonegotiate
exit
interface Ethernet1/0
switchport nonegotiate
exit
interface Ethernet1/1
switchport nonegotiate
exit
interface Ethernet1/2
switchport nonegotiate
exit
interface Ethernet1/3
switchport nonegotiate
exit
interface Ethernet2/0
switchport nonegotiate
exit
interface Ethernet2/1
switchport nonegotiate
exit
interface Ethernet2/2
switchport nonegotiate
exit
interface Ethernet2/3
switchport nonegotiate
exit
interface Ethernet3/0
switchport nonegotiate
exit
interface Ethernet3/1
switchport nonegotiate
exit
interface Ethernet3/2
switchport nonegotiate
exit
interface Ethernet3/3
switchport nonegotiate
exit

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 9 | VTP disabled | Critical | False | False | Successful ✔ |

## Network Mapping

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | CDP globally disabled | Critical | False | False | Error ✘ |

**Generated fix:**
no cdp run

**Fix notice:**
Services such as Cisco IP telephony would not work

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 2 | CDP disabled on interface(s) | Critical | False | False | Error ✘ |

**Right configuration setting found in:**
interface Ethernet0/0
no cdp enable

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3
Serial4/0
Serial4/1
Serial4/2
Serial4/3
Serial5/0
Serial5/1
Serial5/2
Serial5/3

**Generated fix:**
interface Ethernet0/1
no cdp enable
exit
interface Ethernet0/2
no cdp enable
exit
interface Ethernet0/3
no cdp enable
exit
interface Ethernet1/0
no cdp enable
exit
interface Ethernet1/1
no cdp enable
exit
interface Ethernet1/2
no cdp enable
exit
interface Ethernet1/3
no cdp enable
exit
interface Ethernet2/0
no cdp enable
exit
interface Ethernet2/1
no cdp enable
exit
interface Ethernet2/2
no cdp enable
exit
interface Ethernet2/3
no cdp enable
exit
interface Ethernet3/0
no cdp enable
exit
interface Ethernet3/1
no cdp enable
exit
interface Ethernet3/2
no cdp enable
exit
interface Ethernet3/3
no cdp enable
exit
interface Serial4/0
no cdp enable
exit
interface Serial4/1
no cdp enable
exit
interface Serial4/2
no cdp enable
exit
interface Serial4/3
no cdp enable
exit
interface Serial5/0
no cdp enable
exit
interface Serial5/1
no cdp enable
exit
interface Serial5/2
no cdp enable
exit
interface Serial5/3
no cdp enable
exit

| 3 | LLDP globally disabled | Critical | False | False | Successful ✔ |
|---|---|---|---|---|---|
| 4 | LLDP receive disabled on interface(s) | Critical | False | False | Not relevant ✔ |

**Comment:**
Module 11_04_lldp_receive.yaml configured to run after 11_03_lldp_run_disabled.yaml with status error but that module has not run yet with specified cmd_match_status, 11_04_lldp_receive.yaml will not run

| 5 | LLDP transmit disabled on interface(s) | Critical | False | False | Not relevant ✔ |

**Comment:**
Module 11_05_lldp_transmit.yaml configured to run after 11_03_lldp_run_disabled.yaml with status error but that module has not run yet with specified cmd_match_status, 11_05_lldp_transmit.yaml will not run

| 6 | ICMP 224.0.0.1 ping disabled in ACL | Medium | False | False | Error ✗ |
|---|---|---|---|---|---|

**Generated fix:**
ip access-list extended DENY_NETWORK_MAP
remark deny ping all nodes
deny icmp any host 224.0.0.1 echo log-input
remark deny host query
deny igmp any any host-query log-input
permit ip any any

**Fix notice:**
Some devices do not recognize parameter "log-input" in ACL, so manually replace it with "log"

| 7 | IGMP Host Query disabled in ACL | Medium | False | False | Error ✗ |
|---|---|---|---|---|---|

**Generated fix:**
ip access-list extended DENY_NETWORK_MAP
remark deny ping all nodes
deny icmp any host 224.0.0.1 echo log-input
remark deny host query
deny igmp any any host-query log-input
permit ip any any

**Fix notice:**
Some devices do not recognize parameter "log-input" in ACL, so manually replace it with "log"

| 8 | ICMPv6 ff02::1 ping disabled in ACL | Medium | False | False | Error ✗ |
|---|---|---|---|---|---|

**Generated fix:**
ipv6 access-list DENY_NETWORK_MAP_IPV6
remark deny ping all nodes
deny icmp any host ff02::1 echo-request log-input
remark deny mld query
deny icmp any any mld-query log-input
permit ipv6 any any

**Fix notice:**
Some devices do not recognize parameter "log-input" in ACL, so manually replace it with "log"

| 9 | MLD Host Query disabled in ACL | Medium | False | False | Error ✗ |
|---|---|---|---|---|---|

**Generated fix:**
ipv6 access-list DENY_NETWORK_MAP_IPV6
remark deny ping all nodes
deny icmp any host ff02::1 echo-request log-input
remark deny mld query
deny icmp any any mld-query log-input
permit ipv6 any any

**Fix notice:**
Some devices do not recognize parameter "log-input" in ACL, so manually replace it with "log"

| 10 | ACL against IPv4 network monitoring applied on interface(s) | Medium | False | False | Error ✗ |
|---|---|---|---|---|---|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet0/2
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet0/3
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet1/0
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet1/1
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet1/2
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet1/3
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet2/0
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet2/1
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet2/2
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet2/3
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet3/0
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet3/1
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet3/2
ip access-group DENY_NETWORK_MAP in
exit
interface Ethernet3/3
ip access-group DENY_NETWORK_MAP in
exit

**Fix notice:**
ACL will be applied to specified ACCESS interface(s). In case of existing ACL on interface in same direction, please set variable fix_cmd_ignore: "true" and append generated ACL from module 11_12_icmp_discovery_network to existing ACL to proper place.

| 11 | ACL against IPv6 network monitoring applied on interface(s) | Medium | False | False | Error ✘ |
|----|---|---|---|---|---|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet0/2
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet0/3
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet1/0
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet1/1
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet1/2
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet1/3
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet2/0
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet2/1
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet2/2
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet2/3
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet3/0
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet3/1
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet3/2
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit
interface Ethernet3/3
ipv6 traffic-filter DENY_NETWORK_MAP_IPV6 in
exit

**Fix notice:**
ACL will be applied to specified ACCESS interface(s). In case of existing ACL on interface in same direction, please set variable fix_cmd_ignore: "true" and append generated ACL from module 11_14_icmpv6_discovery_network to existing ACL to proper place.

# Filtering

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | ACL filter IPv6 unknown extended header | Critical | False | False | Error ✗ |

**Generated fix:**
ipv6 access-list IPV6_FRAGMENT_FILTER
remark DENY unknown IPv6 extended headers
deny ipv6 any any undetermined-transport log-input
permit ipv6 any any


**Fix notice:**
Some devices do not recognize parameter "log-input" in ACL, so manually replace it with "log"

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 2 | ACL filter IPv6 unknown extended header applied on ACCESS interface | Critical | False | False | Error ✗ |

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet0/2
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet0/3
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet1/0
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet1/1
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet1/2
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet1/3
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet2/0
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet2/1
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet2/2
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet2/3
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet3/0
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet3/1
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet3/2
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit
interface Ethernet3/3
ipv6 traffic-filter IPV6_FRAGMENT_FILTER in
exit

**Fix notice:**
ACL will be applied to specified ACCESS interface. In case of existing ACL on interface in same direction, please set
variable fix_cmd_ignore: "true" and append generated ACL from module 13_06_ipv6_extended_header.yaml to existing
ACL to proper place.

## First Hop Security

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | Port security enabled | Critical | False | False | Error ✘ |

**Right configuration setting found in:**
interface Ethernet0/1
switchport port-security
interface Ethernet0/2
switchport port-security

**Found port(s) with error:**
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/3
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet1/0
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet1/1
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet1/2
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet1/3
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet2/0
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet2/1
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet2/2
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet2/3
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet3/0
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet3/1
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet3/2
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit
interface Ethernet3/3
switchport port-security mac-address sticky
switchport port-security maximum 1
switchport port-security violation shutdown
switchport port-security
exit

| 2 | Port security maximum 1 allowed MAC on port | Critical | False | False | Successful ✔ |
|---|---|---|---|---|---|

| 3 | Port security violation shutdown | Critical | False | False | Successful ✔ |
|---|---|---|---|---|---|
| 4 | 802.1x globally enabled | High | False | False | Error ✘ |

**Generated fix:**
dot1x system-auth-control

| 5 | AAA authentication 802.1x | High | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
aaa authentication dot1x default group RADIUS_SERVER

| 6 | 802.1x enabled on interfaces | High | False | False | Error ✘ |
|---|---|---|---|---|---|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet0/2
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet0/3
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet1/0
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet1/1
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet1/2
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet1/3
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet2/0
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet2/1

```
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet2/2
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet2/3
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet3/0
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet3/1
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet3/2
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
interface Ethernet3/3
access-session port-control auto
authentication port-control auto
dot1x port-control auto
yes
exit
```

**Fix notice:**
Just one of fixing command is applicable to device. There are more because of different syntax among IOS versions.

| 7 | 802.1x enabled on interfaces | High | False | False | Successful ✔ |
|---|---|---|---|---|---|
| 8 | 802.1x port set authenticator | High | False | False | Error ✘ |

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
dot1x pae authenticator
exit
interface Ethernet0/2
dot1x pae authenticator
exit
interface Ethernet0/3
dot1x pae authenticator
exit
interface Ethernet1/0
dot1x pae authenticator
exit
interface Ethernet1/1
dot1x pae authenticator
exit
interface Ethernet1/2
dot1x pae authenticator
exit
interface Ethernet1/3
dot1x pae authenticator
exit
interface Ethernet2/0
dot1x pae authenticator
exit
interface Ethernet2/1
dot1x pae authenticator
exit
interface Ethernet2/2
dot1x pae authenticator
exit
interface Ethernet2/3
dot1x pae authenticator
exit
interface Ethernet3/0
dot1x pae authenticator
exit
interface Ethernet3/1
dot1x pae authenticator
exit
interface Ethernet3/2
dot1x pae authenticator
exit
interface Ethernet3/3
dot1x pae authenticator
exit

| 9 | DHCP Snooping globally enabled | Critical | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
ip dhcp snooping

**Fix notice:**
On router(s) to DHCP server issue command "ip dhcp relay information trust-all"

| 10 | DHCP Snooping enabled for VLAN(s) | Critical | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
ip dhcp snooping vlan 10,20,30,40,50,60

| 11 | DHCP Snooping trust interface(s) set | Critical | False | False | Error ✘ |
|---|---|---|---|---|---|

**Found port(s) with error:**
Ethernet0/0

**Generated fix:**
interface Ethernet0/0
ip dhcp snooping trust
exit

| 12 | DHCP Snooping rate limit fo ACCESS interface(s) set | High | False | False | Error ✘ |
|---|---|---|---|---|---|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ip dhcp snooping limit rate 100
exit
interface Ethernet0/2
ip dhcp snooping limit rate 100
exit
interface Ethernet0/3
ip dhcp snooping limit rate 100
exit
interface Ethernet1/0
ip dhcp snooping limit rate 100
exit
interface Ethernet1/1
ip dhcp snooping limit rate 100
exit
interface Ethernet1/2
ip dhcp snooping limit rate 100
exit
interface Ethernet1/3
ip dhcp snooping limit rate 100
exit
interface Ethernet2/0
ip dhcp snooping limit rate 100
exit
interface Ethernet2/1
ip dhcp snooping limit rate 100
exit
interface Ethernet2/2
ip dhcp snooping limit rate 100
exit
interface Ethernet2/3
ip dhcp snooping limit rate 100
exit
interface Ethernet3/0
ip dhcp snooping limit rate 100
exit
interface Ethernet3/1
ip dhcp snooping limit rate 100
exit
interface Ethernet3/2
ip dhcp snooping limit rate 100
exit
interface Ethernet3/3
ip dhcp snooping limit rate 100
exit

| 13 | IPv6 Unicast Routing enabled | Critical | False | False | Successful ✔ |
|----|------------------------------|----------|-------|-------|--------------|

**Right configuration setting found in:**
ipv6 unicast-routing

| 14 | IPv6 RA Guard host policy defined | Critical | False | False | Error ✘ |
|----|-----------------------------------|----------|-------|-------|---------|

**Generated fix:**
ipv6 nd raguard policy ipv6_raguard_policy
device-role host

| 15 | IPv6 RA Guard on ACCESS interface(s) | Critical | False | False | Error ✘ |
|----|--------------------------------------|----------|-------|-------|---------|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet0/2
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet0/3
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet1/0
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet1/1
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet1/2
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet1/3
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet2/0
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet2/1
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet2/2
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet2/3
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet3/0
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet3/1
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet3/2
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit
interface Ethernet3/3
ipv6 nd raguard attach-policy ipv6_raguard_policy
exit

| 16 | DHCPv6 Server policy | Critical | False | False | Error ✘ |
|----|----------------------|----------|-------|-------|---------|

**Generated fix:**
ipv6 dhcp guard policy dhcpv6_server_policy
device-role server

| 17 | DHCPv6 Client policy | Critical | False | False | Error ✘ |
|----|----------------------|----------|-------|-------|---------|

**Generated fix:**
ipv6 dhcp guard policy dhcpv6_client_policy
device-role client

| 18 | DHCPv6 Guard server interface(s) set | Critical | False | False | Error ✘ |
|----|--------------------------------------|----------|-------|-------|---------|

**Found port(s) with error:**
Ethernet0/0

**Generated fix:**
interface Ethernet0/0
ipv6 dhcp guard attach-policy dhcpv6_server_policy
exit

| 19 | DHCPv6 Guard client interface(s) set | Critical | False | False | Error ✘ |
|----|--------------------------------------|----------|-------|-------|---------|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet0/2
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet0/3
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet1/0
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet1/1
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet1/2
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet1/3
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet2/0
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet2/1
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet2/2
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet2/3
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet3/0
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet3/1
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet3/2
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit
interface Ethernet3/3
ipv6 dhcp guard attach-policy dhcpv6_client_policy
exit

| 20 | Dynamic ARP Inspection enabled for VLAN(s) | Critical | False | False | Error ✘ |
|----|--------------------------------------------|----------|-------|-------|---------|

**Generated fix:**
ip arp inspection vlan 10,20,30,40,50,60

| 21 | Dynamic ARP Inspection validate by SRC,DST MAC and IP | Critical | False | False | Error ✘ |
|----|-------------------------------------------------------|----------|-------|-------|---------|

**Generated fix:**
ip arp inspection validate src-mac dst-mac ip

| 22 | Dynamic ARP trusted interface(s) set | Critical | False | False | Error ✘ |
|----|---------------------------------------|----------|-------|-------|---------|

**Found port(s) with error:**
Ethernet0/0

**Generated fix:**
interface Ethernet0/0
ip arp inspection trust
exit

| 23 | IPv6 ND inspection policy | Critical | False | False | Error ✘ |
|----|---------------------------|----------|-------|-------|---------|

**Generated fix:**
ipv6 nd inspection policy ipv6_nd_inspection_policy
device-role host
tracking enable

| 24 | IPv6 ND inspection on interface(s) set | Critical | False | False | Error ✘ |
|----|-----------------------------------------|----------|-------|-------|---------|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet0/2
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet0/3
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet1/0
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet1/1
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet1/2
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet1/3
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet2/0
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet2/1
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet2/2
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet2/3
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet3/0
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet3/1
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet3/2
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit
interface Ethernet3/3
ipv6 nd inspection attach-policy ipv6_nd_inspection_policy
exit

| 25 | IPv6 Snooping policy | Critical | False | False | Error ✘ |
|----|----------------------|----------|-------|-------|---------|

**Generated fix:**
ipv6 snooping policy ipv6_snooping_policy
security-level glean

| 26 | IPv6 Snooping on interface(s) set | Critical | False | False | Error ✘ |
|----|-----------------------------------|----------|-------|-------|---------|

**Found port(s) with error:**
Ethernet0/0
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/0
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet0/1
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet0/2
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet0/3
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet1/0
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet1/1
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet1/2
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet1/3
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet2/0
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet2/1
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet2/2
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet2/3
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet3/0
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet3/1
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet3/2
ipv6 snooping attach-policy ipv6_snooping_policy
exit
interface Ethernet3/3
ipv6 snooping attach-policy ipv6_snooping_policy
exit

| 27 | IP Source Guard on interface(s) set | Critical | False | False | Error ✖ |
|----|-------------------------------------|----------|-------|-------|---------|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ip verify source port-security
exit
interface Ethernet0/2
ip verify source port-security
exit
interface Ethernet0/3
ip verify source port-security
exit
interface Ethernet1/0
ip verify source port-security
exit
interface Ethernet1/1
ip verify source port-security
exit
interface Ethernet1/2
ip verify source port-security
exit
interface Ethernet1/3
ip verify source port-security
exit
interface Ethernet2/0
ip verify source port-security
exit
interface Ethernet2/1
ip verify source port-security
exit
interface Ethernet2/2
ip verify source port-security
exit
interface Ethernet2/3
ip verify source port-security
exit
interface Ethernet3/0
ip verify source port-security
exit
interface Ethernet3/1
ip verify source port-security
exit
interface Ethernet3/2
ip verify source port-security
exit
interface Ethernet3/3
ip verify source port-security
exit

| 28 | IPv6 Source Guard policy | Critical | False | False | Error ✘ |
|----|--------------------------|----------|-------|-------|----------|

**Generated fix:**
ipv6 source-guard policy ipv6_source_guard_policy
validate address

| 29 | IPv6 Source Guard on interface(s) set | Critical | False | False | Error ✘ |
|----|---------------------------------------|----------|-------|-------|----------|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet0/2
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet0/3
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet1/0
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet1/1
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet1/2
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet1/3
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet2/0
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet2/1
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet2/2
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet2/3
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet3/0
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet3/1
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet3/2
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit
interface Ethernet3/3
ipv6 source-guard attach-policy ipv6_source_guard_policy
exit

| 30 | IPv6 Destination Guard policy | Critical | False | False | Error ✘ |
|----|-------------------------------|----------|-------|-------|---------|

**Generated fix:**
ipv6 destination-guard policy ipv6_destination_guard_policy
enforcement always

| 31 | IPv6 Destination Guard on interface(s) set | Critical | False | False | Error ✘ |
|----|--------------------------------------------|----------|-------|-------|---------|

**Found port(s) with error:**
Ethernet0/1
Ethernet0/2
Ethernet0/3
Ethernet1/0
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet2/0
Ethernet2/1
Ethernet2/2
Ethernet2/3
Ethernet3/0
Ethernet3/1
Ethernet3/2
Ethernet3/3

**Generated fix:**
interface Ethernet0/1
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet0/2
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet0/3
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet1/0
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet1/1
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet1/2
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet1/3
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet2/0
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet2/1
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet2/2
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet2/3
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet3/0
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet3/1
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet3/2
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit
interface Ethernet3/3
ipv6 destination-guard attach-policy ipv6_destination_guard_policy
exit

## Other

| No. | Name | Severity | Skipped | Cannot determine search/fix | Status |
|-----|------|----------|---------|------------------------------|--------|
| 1 | Servis PAD disabled (Packet assembler disassembler) | High | False | False | Error ✘ |
| **Generated fix:** no service pad | | | | | |
| 2 | BOOTP server disabled | High | False | False | Error ✘ |
| **Generated fix:** no ip bootp server | | | | | |
| 3 | Finger protocol disabled | High | False | False | Successful ✔ |
| 4 | HTTP server disabled | High | False | False | Error ✘ |
| **Error configuration setting found in:** ip http server | | | | | |
| 5 | HTTPS server disabled | High | False | False | Successful ✔ |
| 6 | TCP small server disabled | High | False | False | Successful ✔ |
| 7 | UDP small server disabled | High | False | False | Successful ✔ |
| 8 | IP domain lookup disabled | High | False | False | Successful ✔ |

**Right configuration setting found in:**
no ip domain-lookup

| 9 | Gratuitous ARPs generation disabled | High | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
no ip gratuitous-arps

| 10 | Gratuitous ARPs reject enabled | High | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
ip arp gratuitous none

| 11 | Netflow is disabled | Notice | False | False | Notice ❗ |
|---|---|---|---|---|---|

**Error configuration setting found in:**
ip flow-export destination 192.168.50.11 100

**Fix ignore comment:**
By default fix is ignored due to disablement of traffic monitoring. Consider whether port mirroring is neccesary for monitoring

| 12 | Netflow version 9 used | Medium | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
ip flow-export version 9

| 13 | Netflow traffic analyze disabled on interface(s) | Notice | False | False | Notice ❗ |
|---|---|---|---|---|---|

**Error configuration setting found in:**
interface Ethernet0/2
ip flow ingress

**Found ports with error:**
Ethernet0/2

**Generated fix:**
interface Ethernet0/2
no ip flow ingress
interface Ethernet0/2
exit

**Fix ignore comment:**
By default fix is ignored due to disablement of traffic monitoring. Consider whether port mirroring is neccesary for monitoring

| 14 | Port mirroring disabled on interface(s) | Notice | False | False | Notice ❗ |
|---|---|---|---|---|---|

**Error configuration setting found in:**
monitor session 1 source interface Et0/2

**Fix ignore comment:**
By default fix is ignored due to disablement of traffic monitoring. Consider whether port mirroring is neccesary for monitoring

| 15 | Notification on memory IO leak/overflow | Medium | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
exception memory ignore overflow io

| 16 | Notification on memory CPU leak/overflow | Medium | False | False | Error ✘ |
|---|---|---|---|---|---|

**Generated fix:**
exception memory ignore overflow processor

| 17 | Network boot disabled | Medium | False | False | Successful ✔ |
|---|---|---|---|---|---|
| 18 | Network config load disabled | Medium | False | False | Successful ✔ |
| 19 | SCP server enabled | Medium | False | False | Error ✘ |

**Generated fix:**
ip scp server enable

| 20 | SCP alias copy instead of TFTP | High | False | False | Successful ✔ |
|---|---|---|---|---|---|

| 21 | Protection of configuration deletion | High | False | False | Error ✘ |

**Generated fix:**
secure boot config
secure boot-config

**Fix notice:**
Just one of fixing command is applicable to device. There are more because of different syntax among IOS versions.

| 22 | Archive and log config changes | Medium | False | False | Error ✘ |

**Generated fix:**
archive
path unix:
log config
logging enable
notify syslog
hidekeys
maximum 5
time-period 60

| 23 | Terminate hanged inbound TCP connection to device | Medium | False | False | Error ✘ |

**Generated fix:**
service tcp-keepalives-in

| 24 | Terminate hanged outbound TCP connection to device | Medium | False | False | Error ✘ |

**Generated fix:**
service tcp-keepalives-out

| 25 | Encrypt all saved passwords in configuration | Critical | False | False | Successful ✔ |

**Right configuration setting found in:**
no service password-encryption